

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.2

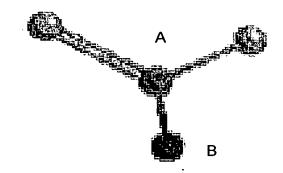
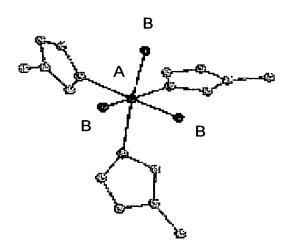


FIG.3

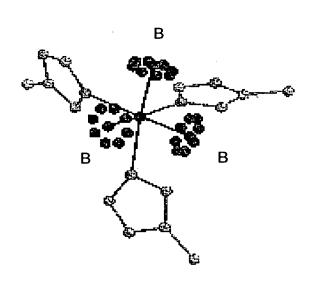


Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.4



FIG.5



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FIG.6

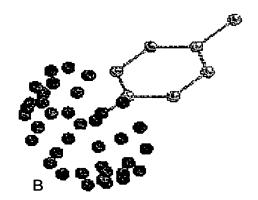
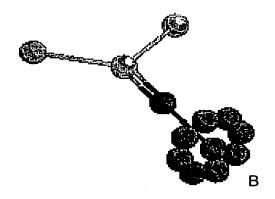


FIG.7



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.8

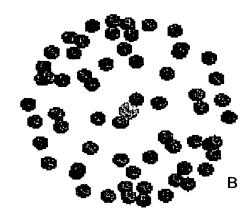
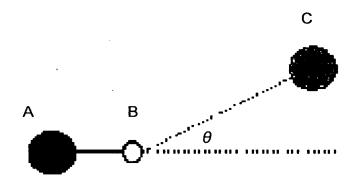


FIG.9



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FIG.10

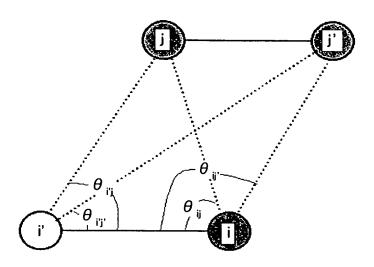
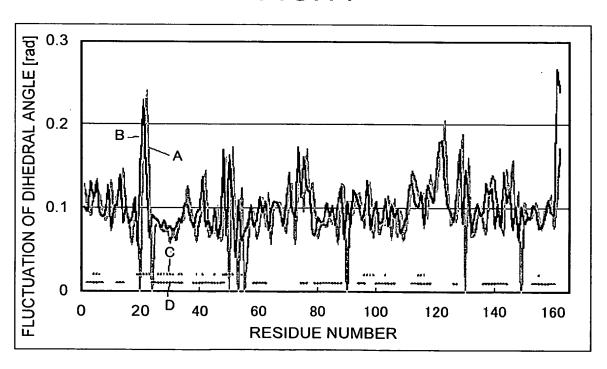


FIG.11



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RANKING	MINIMUM VALUE	MAXIMUM VALUE	α [%]	β [Å]	NUMBER OF CLUSTERS	SCORE
1	0	800	70	0.4	57	0.9054
2	0	800	70	0.1	62	0.9097
3	0	800	70	0.2	62	0.9097
4	0	800	70	0.3	62	0.9097
5	0	800	80	0.1	81	0.9102
6	0	800	80	0.2	81	0.9102
7	0	800	70	0.5	52	0.9103
8	0	800	80	0.4	73	0.9106
9	0	800	80	0.3	80	0.9116
10	0	800	80	0.5	67	0.9151
11	0	800	70	0.6	46	0.9156
12	. 0	800	90	0.5	240	0.9183
13	0	800	90	0.6	174	0.9194
14	0	800	60	0.6	13	0.9211
15	0	800	90	0.4	297	0.9225
16	0	800	80	0.6	58	0.9261
17	0	800	90	0.1	425	0.9286
18	0	800	90	0.2	425	0.9286
19	0	800	90	0.3	420	0.9296
. 20	0	800	60	0.1	16	0.9354
21	0	800	60	0.2	16	0.9354
22	0	800	60	0.3	16	0.9354
23	0	800	60	0.4	16	0.9354
24	0	800	60	0.5	15	0.9451
25	600	900	60	0.1	28	0.9469
26	600	900	60	0.2	28	0.9469
27	600	900	60	0.3	28	0.9469
28	600	900	60	0.4	28	0.9469
29	600	900	60	0.5	27	0.9518
30	600	900	60	0.6	27	0.9518

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FIG.13

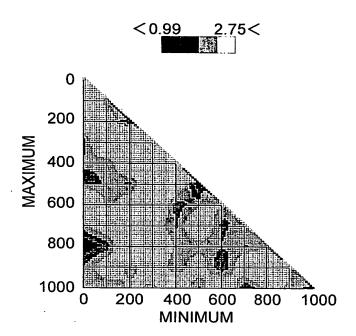


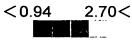
FIG.14

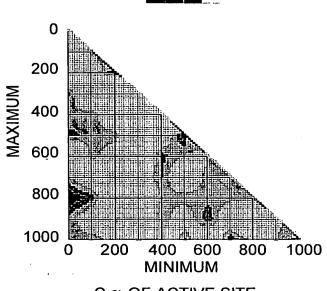
MINIMUM VALUE OF CONSTRAINED MD	0.00
MAXIMUM VALUE OF CONSTRAINED MD	800.00
CLUSTERING COEFFICIENT α (%)	80.00
CLUSTERING COEFFICIENT β (Å)	0.40

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FIG.15

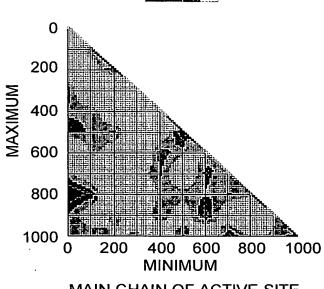




C α OF ACTIVE SITE

FIG.16





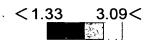
MAIN CHAIN OF ACTIVE SITE

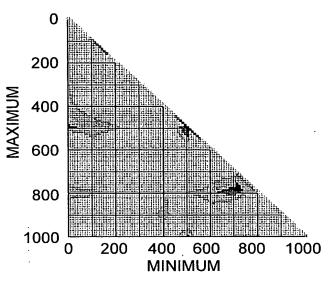
Title: LIGAND SEARCHING DEVICE, LIGAND SEARCHING METHOD, PROGRAM, AND RECORDING MEDIUM Inventor(s): Hideaki UMEYAMA et al.

Appl. No.: Unassigned

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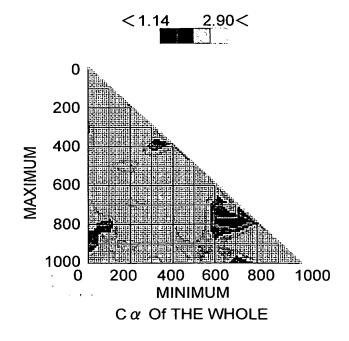
FIG.17





WHOLE ATOM IN ACTIVE SITE

FIG.18



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FIG.19

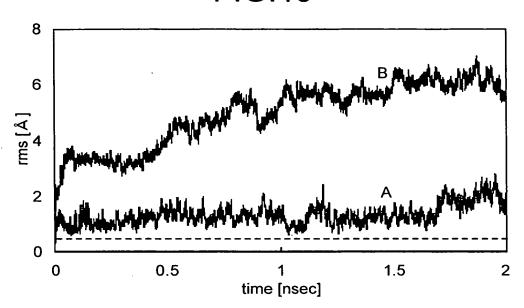
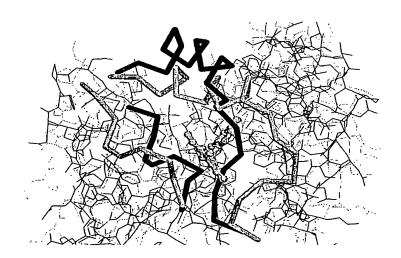
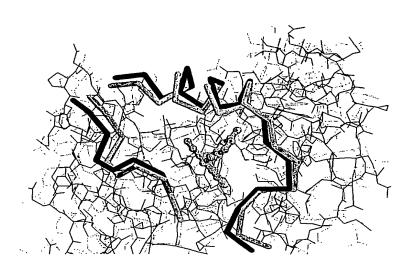


FIG.20



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FIG 22

>1CBQ PNFSGNWKIIRSENFEELLKVLGVNVMLRKIAVAAASKPAVEIKQEGDTFYIKTSTTVRTTEINFKVGEEFEEQTVDGRP CKSLVKWESENKMVCEQKLLKGEGPKTSWTRELTNDGELILTMTADDVVCTRVYVRE >11CM

-AFDGTWKVDRNENYEKFMEKMGINVVKRKLG-AHDNLKLTITQEGNKFTVKESSNFRNIDVVFELGVDFAYSLADGTE L-TGTWTMEGNKLVGKFKRV-DNGKELIAVREIS-GNELIQTYTYEGVEAKRIFKKE

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.23

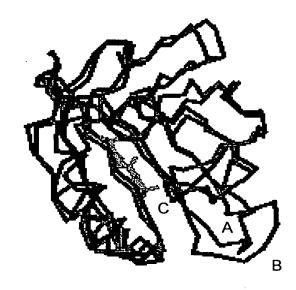


FIG.24

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X-RAY STRUCTURE	1CBQ
REFERENCE PROTEIN	1ICM
HOMOLOGY [%]	32.1
NUMBER OF RESIDUES	136
MAIN CHAIN IN ACTIVE SITE [Å]	2.2487
SIDE CHAIN IN ACTIVE SITE [Å]	3.2446
ALL ATOMS IN ACTIVE SITE [Å]	2.7728
MAIN CHAIN IN THE WHOLE [Å]	2.2075
SIDE CHAIN IN THE WHOLE [Å]	3.7881
ALL ATOMS IN THE WHOLE [Å]	3.0959

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FIG.26

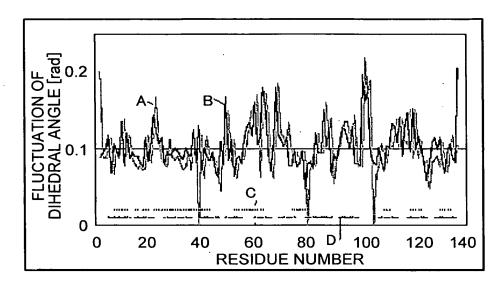
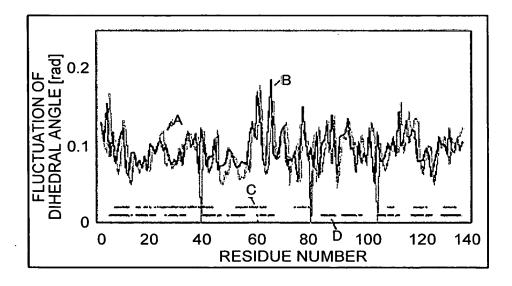
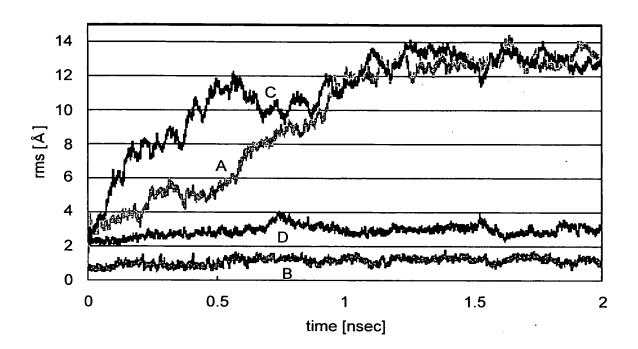


FIG.27



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FIG.29

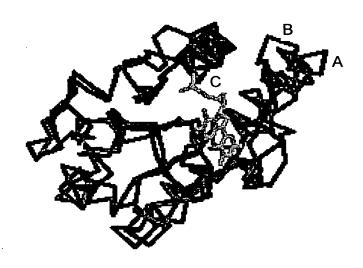
AITGIFFGSDTGNTENIAKMIQKQLGKDVADVHDIAKSSKE---DLEAYDILLLGIPTWYYG---EAQCDWDDFFPTLEE IDFNGKLVALFGCGDQEDYAEYFCDALGTIRDIIEPRGATIVGHWPTAGYHFEASKGLADDDHFVGLAIDEDRQPELTAE RVEKWVKQISE AKALIVYGSTTGNTEYTAETIARELADAGYEVDSRDAASVEAGGLFEGFDLVLLGCSTWGD-DCIELQDDFIPLFDSLEE TGAQGRKVACFGCGDS--SYEYFCGAVDAIEEKLKNLGAEIVQDG--------LRIDGDPRAARDDI VGWAHDVRGAI >1AHN

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FIG.30



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X-RAY STRUCTURE	1J9G
REFERENCE PROTEIN	1AHN
HOMOLOGY [%]	. 29.2
NUMBER OF RESIDUES	147
MAIN CHAIN IN ACTIVE SITE [Å]	2.3909
SIDE CHAIN IN ACTIVE SITE [Å]	4.5774
ALL ATOMS IN ACTIVE SITE [Å]	3.5753
MAIN CHAIN IN THE WHOLE [Å]	3.1212
SIDE CHAIN IN THE WHOLE [Å]	5.367
ALL ATOMS IN THE WHOLE [Å]	4.315

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FIG.33

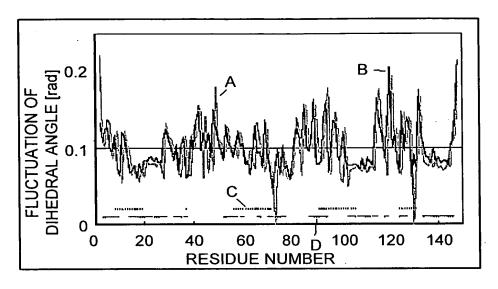
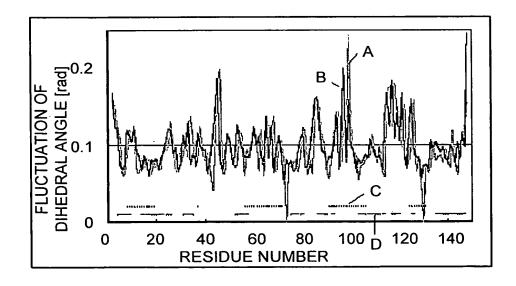
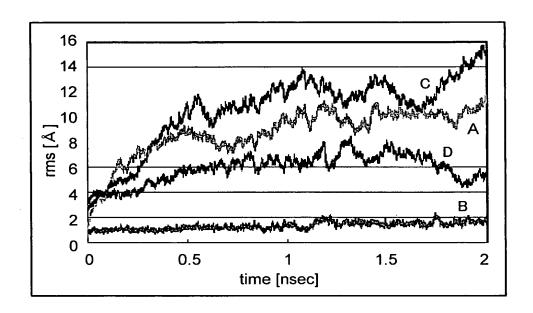


FIG.34



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.35



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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FIG. 36

>1MMB

NPKWERTNLTYRIRNYTPQLSEAEVERAIKDAFELWSVASPLIFTRISQGEADINIAFYQRDHGDNSPFDGPNGILAHAF QPGQGIGGDAHFDAEETWTNTSANYNLFLVAAHEFGHSLGLAHSSDPGALMYPNYA-FRETSNYSLPQDDIDGIQAIYG IPKWRŘÍHLTYRIVNYTPDLPKDAVDSAVEKALKVWEEVTPLTFSRLYEGEADIMISFAVREHGDFYPFDGPGNVLAHAY APGPGINGDAHFDDDEQWTKDTTGTNLFLVAAHEIGHSLGLFHSANTEALMYPLYHSLTDLTRFRLSQDDINGIQSLYG >1B3D_A

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FIG.37

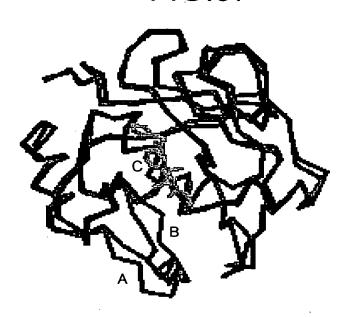


FIG.38

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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X-RAY STRUCTURE	1MMB
REFERENCE PROTEIN	1B3D
HOMOLOGY [%]	55
NUMBER OF RESIDUES	158
MAIN CHAIN IN ACTIVE SITE [Å]	0.9442
SIDE CHAIN IN ACTIVE SITE [Å]	3.0756
ALL ATOMS IN ACTIVE SITE [Å]	2.2417
MAIN CHAIN IN THE WHOLE [Å]	1.1339
SIDE CHAIN IN THE WHOLE [Å]	2.5715
ALL ATOMS IN THE WHOLE [Å]	1.9808

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.40

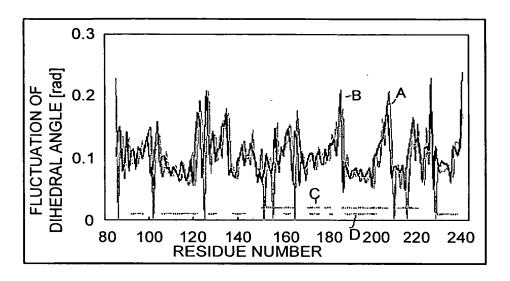
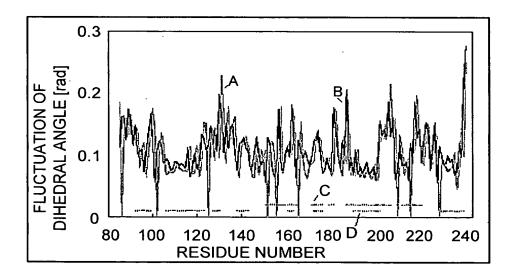


FIG.41



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.42

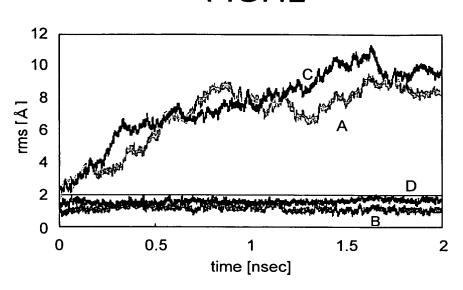
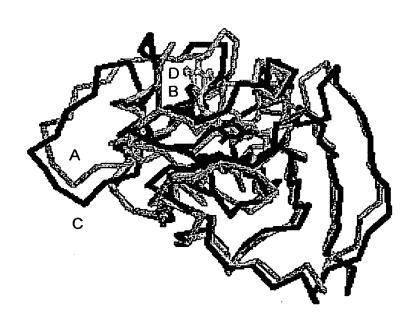


FIG.43



Title: LIGAND SEARCHING DEVICE, LIGAND SEARCHING METHOD, PROGRAM, AND RECORDING MEDIUM Inventor(s): Hideaki UMEYAMA et al.

Appl. No.: Unassigned

FIG.44

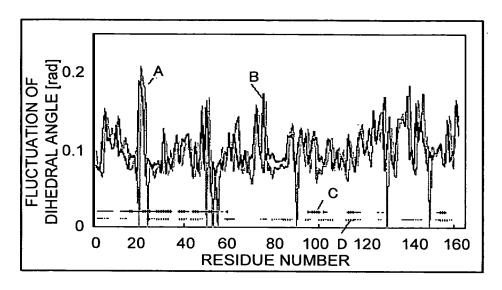
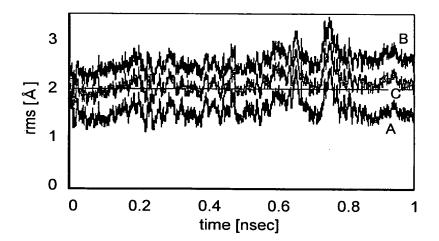


FIG.45



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FIG.46

ATOM OF ACTIVE SITE	ATOM TYPE OF LIGAND	INTENSITY OF INTERACTION	DISTANCE OF INTERACTION [Å]
LUE4 O	N.pl3	300	2.87
ASP26 OD1	N.ar	300	3.00
ASP26 OD2	N.pl3	300	3.00

SECTION [nsec]	DISTANCE [fsec]	NUMBER OF CLUSTERS	MAIN CHAIN [Å]	ALL ATOMS [Å]	LIGAND [Å]
INITIAL STRUCTURE			1.5313	1.9190	
0~0.1	100	11	1.3531	1.8612	1.2734
0~1.0	100	204	1.2522	1.8116	0.9614
0~1.0	1000	- 26	1.2522	1.8116	0.8169

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FIG.48

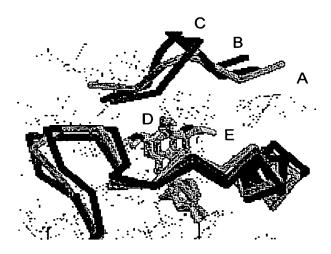
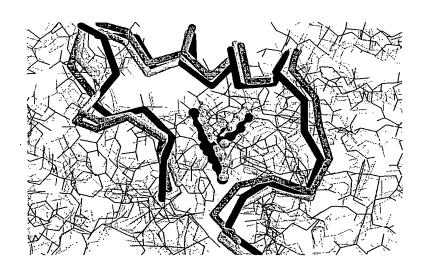


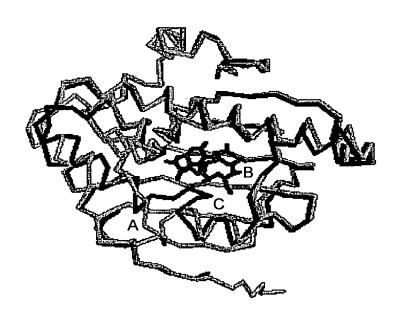
FIG.49



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FIG.50

FIG.51



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.52

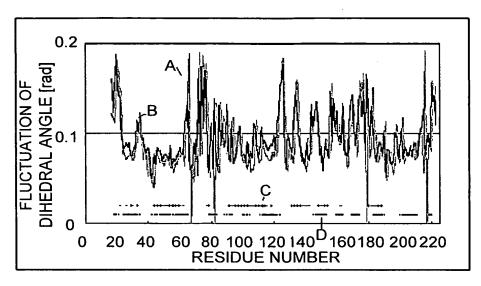
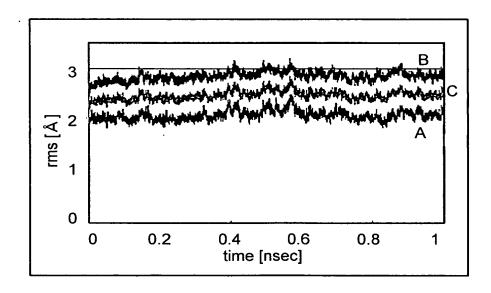


FIG.53



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FIG.54

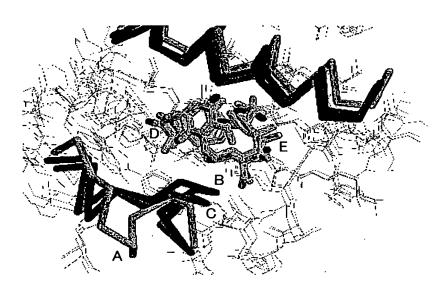
ATOM OF ACTIVE SITE	ATOM TYPE OF LIGAND	INTENSITY OF INTERACTION	DISTANCE OF INTERACTION [Å]	
LYS58 NZ	0.3	300	2.8	
ASP93 OD2	N.am	300	2.8	
PHE138 N	0.2	300	2.8	

SECTION [nsec]	DISTANCE [fsec]	NUMBER OF CLUSTERS	MAIN CHAIN [Å]	ALL ATOMS [Å]	LIGAND [Å]
INITIAL STRUCTURE			2.0144	2.2600	
0~0.1	100	6	1.8525	2.2601	1.2081
0~1.0	100	133	1.9139	2.3883	1.5932
0~1.0	1000	9	1.9764	2.8421	0.9667

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FIG.56



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MEDIUM
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Appl. No.: Unassigned

FIG.59

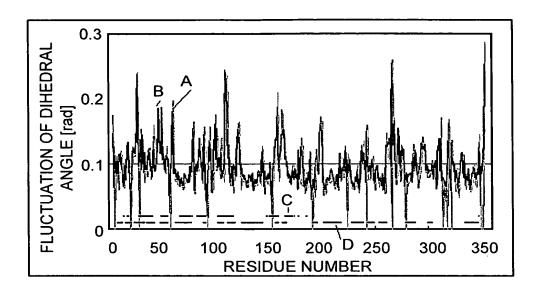
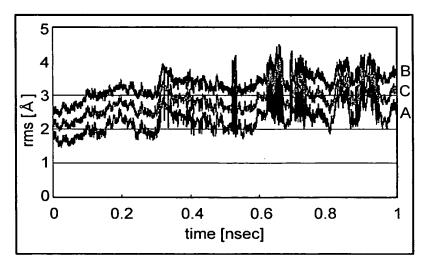


FIG.60



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FIG.61

ATOM OF ACTIVE SITE	ATOM TYPE OF LIGAND	INTENSITY OF INTERACTION	DISTANCE OF INTERACTION [Å]
LEU75 CD1	F	300	3.6
LEU75 CD2	F	300	3.6
MET109 N	N.ar	300	2.7

SECTION [nsec]	DISTANCE [fsec]	NUMBER OF CLUSTERS	MAIN CHAIN [Å]	ALL ATOMS [Å]	LIGAND [Å]
INITIAL STRUCTURE			1.7972	2.1606	
0~0.1	100	5	1.6101	2.0766	1.6112
0~1.0	. 100	319	1.7236	2.2843	1.4550
0~1.0	1000	31	1.7236	2.2843	1.4571

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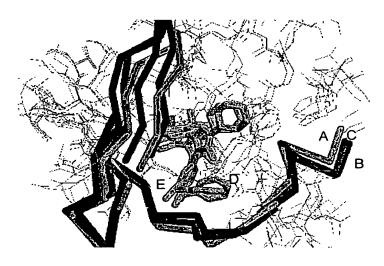


FIG.64

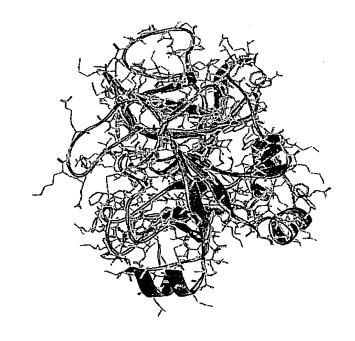


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FIG.65

$$F_3$$
C

FIG.66



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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FIG.67

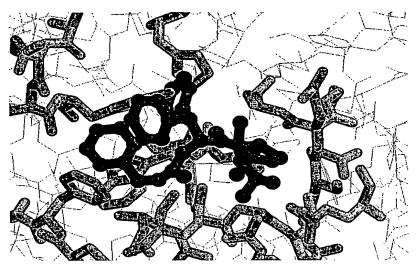
					 ;
RANKINO	INTERACTION G ENERGY	PDBcode	RANKIN	INTERACTION IG ENERGY	PDBcode
[001]	-3847.2147	4PGT	[002]	-3671.4754	1MP7
[003]	-3056.6135	1BMN	[004]	-2923.8680	1132
10051	-2872.4420	5FWG	[006]	-2608.5702	1LHF
[007]	-2528.6110	1BX6	[800]	-2439.5657	1B8Y
[009]	-2433.9052	1EZF	[010]	-2382.8539	5LDH
[011]	-2248.0139	1FVP	[012]	-2247.3089	1JJQ
[013]	-2133.5942	1IL2	[014]	-2128.4540	1BJI
[015]	-2125.1405	1DMT	[016]	-2103.1434	1K22
[017]	-2092.6654	1HY7	[018]	-2025.5091	966C
[019]	-2013.9064 -1946.4497	1AIX 1VZE	[020]	-1989.1635	1A4Q 1KVO
[021] [023]	-1946.4497 -1928.3650	102E 1D6V	[022] [024]	-1932.9896 -1901.6172	1C0A
[025]	-1890.2208	1D85	[024]	-1867.0754	1GUH
[027]	-1855.6184	1QIN	[028]	-1817.4767	1M21
029	-1782.5387	1KCI	[030]	-1766.9010	1KZK
[031]	-1728.2876	6GSX	[032]	-1709.9359	2PRG
[033]	-1699.2351	1NPW	[034]	-1694.4086	2UPJ
[035]	-1661.4315	1AUJ	[036]	-1658.1970	1HFR
[037]	-1654.2430	1DMP	[038]	-1599.5870	1F0R
[039]	-1595.7907	2GSQ	[040]	-1569.9256	1QHC
[041]	-1530.3871	1AIM	[042]	-1481.1846	1EL3
[043] [045]	-1473.7372 -1411.1465	1QH5 1HFC	[044] [046]	-1453.3935 -1389.8129	1LHC 2FMB
[045]	-1372.1506	1GFW	[048]	-1352.8868	1EM6
0491	-1329.5658	1AU0	[050]	-1306.5704	1M9B
0511	-1287.3729	1EAS	0521	-1265.8962	1LHE
[053]	-1248.8527	1C8T	[054]	-1244.2458	1MMQ
[055]	-1216.6454	1QIP	[056]	-1200.9810	207D
[057]	-1175.5120	1HWL	[058]	-1138.1881	4UPJ
[059]	-1112.7163	3GST	[060]	-1068.0641	1LEE
[061]	-1030.5972	1GA9	[062]	-1030.4960	10D7 1LF2
[063] [065]	-1029.0345 -1011.9100	1HOV 1ODY	[064] [066]	-1018.1686 -976.1041	1CQQ
[067]	-948.0992	1G2K	[068]	-936.9058	2AIM
[069]	-934.4739	1NWL	[070]	-924.6255	6FIV
[071]	-902.7587	1YEI	[072]	-900.4131	1MXT
[073]	-894.5544	1YEF	[074]	-874.9274	1DZT
[075]	-857.5373	1QF0	[076]	-851.1669	1EGV
[077]	-844.2406	1F29	[078]	-824.5393	1KV2
[079]	-820.4913	456C	[080]	-775.9659	1K1M
[081] [083]	-766.8359 -739.3676	1JR4 1KN4	[082] [084]	-763.2825 -733.8593	2KCE 1RT2
[085]	-728.8765	1HPV	[086]	-733.63 9 3 -718.5795	2BBQ
[087]	-705.3978	1MS6	[088]	-695.0241	1IF7
1 10891	-689.7998	1JIL	[090]	-684.7289	1A8J
[091]	-676.3861	1FL3	[092]	-628.8081	1CIZ
[093]	-619.2121	1DIF	[094]	-604.7057	2BPX
[095]	-598.4143	11F9	[096]	-564.5807	1K0C
[097]	-561.6472	1KN2	[098]	-541.1021	1HBV
[099]	-507.6808	1DB4	[100]	-496.0550	1K1J
BOLD:	LIGAND CONTAIN	NED IN 1AI	×		

BOLD: LIGAND CONTAINED IN 1AIX ITALIC: SERINE PROTEASE

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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FIG.68



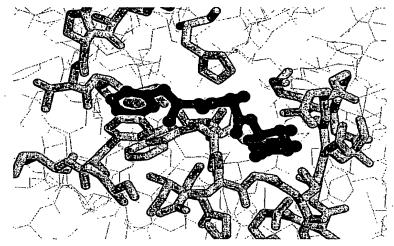
RANKING 19

LIGAND CONTAINED IN 1AIX

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FIG.70



RANKING 35

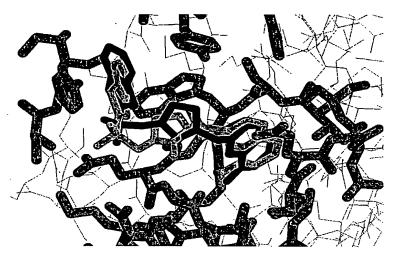
LIGAND CONTAINED IN 1AUJ

MEDIUM

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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FIG.72



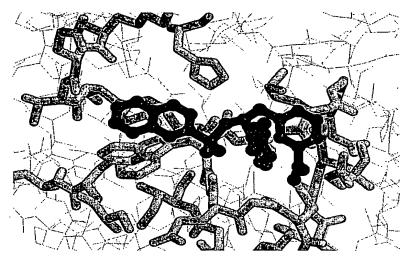
RANKING 38

LIGAND CONTAINED IN 1FOR

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FIG.74



RANKING 80

FIG.75

LIGAND CONTAINED IN 1KIM

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.76

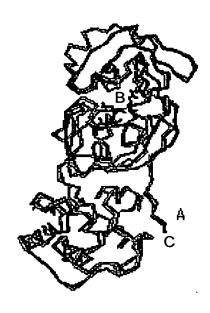
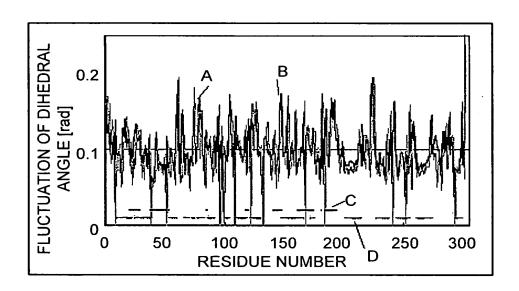


FIG.77



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.78

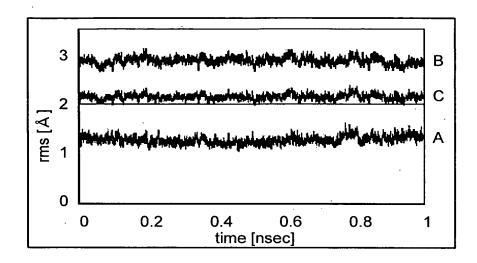


FIG.79

ATOM OF ACTIVE SITE	ATOM TYPE OF LIGAND	INTENSITY OF INTERACTION	DISTANCE OF INTERACTION [Å]
CYS145 N	O.co2	100	2.70
MET165 CG	C.3	100	4.00
GLU166 N	O.2	100	2.70
THR190 N	O.3	100	2.70

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RANKING	ENERGY	PDB code	REMARKS
1	-1089.2153	1QF4	ligase
2	-990.9917	1KZL	transferase
3	-906.5003	1C0A	ligase/RNA
4	-889.1661	1KGQ	transferase
5	-869.3531	1195	ribosome
6	-860.2331	1JR4	transferase
7	-858.0005	1A2N	transferase
8	-832.0515	1NKK	hydrolase
9	-788.3545	1JIL	ligase
10	-757.2852	1EJB	transferase
11	-697.9477	1DMT	hydrolase
12	-645.0269	1PAU	complex (protease/inhibitor)
13	-633.1260	1F74	lyase
14	-628.9678	1KYU	endocytosis/exocytosis
15	-616.4458	1NRS	serine proteinase/receptor
16	-608.4169	9LYZ	hydrolase (o-glycosyl)
17	-600.2775	1EIO	lipid-binding protein
18	-593.7082	1F7B	lyase
19	-585.7663	1LMW	complex (serine protease/inhibitor)
20	-584.0059	1R1R	oxidoreductase
21	-580.1563	1IL2	ligase/RNA
22	-573.0481	1BLL	hydrolase(alpha-aminoacylpeptide)
23	-572.6763	1E1F	glycoside hydrolase
24	-540.1965	1LKL	complex (tyrosine kinase/peptide)
25	-524.2817	1UK4	hydrolase
26	-518.3528	1LCB	transferase (methyltransferase)
27	-506.8123	1PGN	oxidoreductase (choh(d)-nadp+(a))
28	-493.5477	115Q	hydrolase
29	-486.8954	1KYD	endocytosis/exocytosis
30	-481.9659	1NRR	serine proteinase/receptor

MEDIUM

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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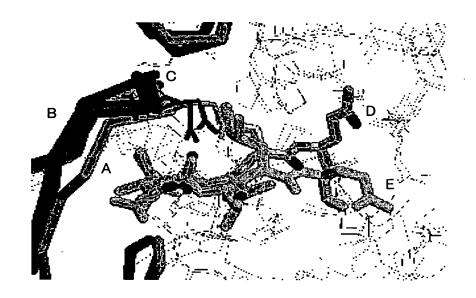
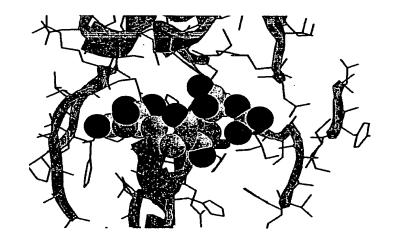


FIG.82



Title: LIGAND SEARCHING DEVICE, LIGAND SEARCHING METHOD, PROGRAM, AND RECORDING
MEDIUM
Inventor(s): Hideaki UMEYAMA et al.

Appl. No.: Unassigned

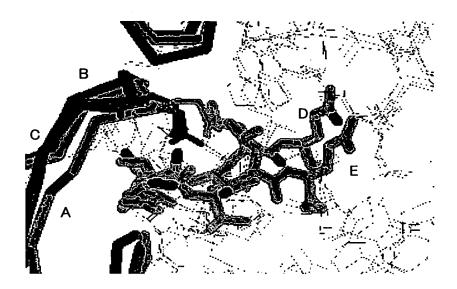
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FIG.84

ATOM OF ACTIVE SITE	ATOM TYPE OF LIGAND	INTENSITY OF INTERACTION	DISTANCE OF INTERACTION [Å]
CYS145 N	O.co2	100	2.70
GLUの166 N	0.2	100	2.70
THR190 N	0.3	100	2.70

Title: LIGAND SEARCHING DEVICE, LIGAND SEARCHING METHOD, PROGRAM, AND RECORDING MEDIUM Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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RANKING	ENERGY	PDB code	REMARKS
1	-1263.8870	1EAD	dihydrolipoamide acetyltransferase
2	-1260.8689	1F6M	oxidoreductase
3	-1147.1739	1JR4	transferase
4	-1141.9917	1QF5	ligase
5	-1104.9447	1JAY	structural genomics
6	-1019.3584	1KZL	transferase
7	-996.5865	1QF4	ligase
8	-988.6588	1JIJ	ligase
9	-981.8594	8ICO	complex (nucleotidyltransferase/dna)
10	-953.0986	1LO9	hydrolase
11	-949.1903	1JTU	transferase
12	-922.4795	1JKX	transferase
13	-918.4892	1JIL	ligase
14	-916.9950	1195	ribosome
15	-908.4880	1AL6	lyase
16	-893.5862	1LKL	complex (tyrosine kinase/peptide)
17	-892.3713	1N37	deoxyribonucleic acid
18	-887.9721	1LCB	transferase (methyltransferase)
19	-866.9600	109F	protein binding
20	-826.4893	1LO7	hydrolase
21	-792.0254	4UAG	ligase
22	-776.9998	1EJB	transferase
, 23	-772.2400	1BFZ	n-terminal product peptide
24	-769.6844	1F9E	apoptosis
25	-762.5275	1TLP	hydrolase (metalloproteinase)
26	-759.8312	1QIN	lyase
27	-758.2140	1KO6	transferase
28	-757.5526	1C0A	ligase/RNA
29	-755.7987	1QD1	transferase
30	-755.1049	1LO8	hydrolase
49	-639.1858	1UK4	hydrolase

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FIG.87

ATOM OF ACTIVE SITE	ATOM TYPE OF LIGAND	INTENSITY OF INTERACTION	DISTANCE OF INTERACTION [Å]
THR25 OG1	N.am	100	3.80
CYS145 N	O.co2	100	2.70
MET165 CG	C.3	100	4.00
GLU166 N	0.2	100	2.70
THR190 N	O.3	100	2.70

RANKING	ENERGY	PDB code	REMARKS
1	-364.6548	1195	ribosome
2	-299.0166	1UK4	hydrolase
3	-109.6867	1BXX	endocytosis/exocytosis
4	-93.0540	1KZL	transferase
5	-72.9399	1NKK	hydrolase
6	-10.7565	1F8H	endocytosis/exocytosis
7	-4.2756	1QTN	apoptosis
8	162.1557	1KGQ	transferase
9	163.2075	109F	protein binding
10	331.8725	1CGL	metalloprotease
11	370.5027	2BBQ	transferase(methyltransferase)
12	397.8488	4DMR	oxidoreductase
13	550.2598	1HPG	hydrolase (serine protease)
14	716.6561	1LOC	lectin
15	839.7398	1DMT	hydrolase
16	848.7090	1KAP	zinc metalloprotease
17	850.2630	1JG3	transferase
18	883.4400	1BC5	complex (methyltransferase/peptide)
19	905.9695	1FCH	signaling protein
20	913.9769	1CF8	catalytic antibody
21	1088.2428	1NWE	hydrolase
22	1089.3496	1KO6	transferase
23	1116.9042	1F74	lyase
24	1131.4783	1ING	hydrolase (o-glycosyl)
25	1132.3648	1131	endocytosis/exocytosis
26	1148.9063	1IAU	hydrolase
27	1156.0335	1B48	transferase
28	1160.3512	1PTT	complex (hydrolase/peptide)
29	1176.7814	1MC5	oxidoreductase
30	1197.3565	1F9E	apoptosis

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FIG.89

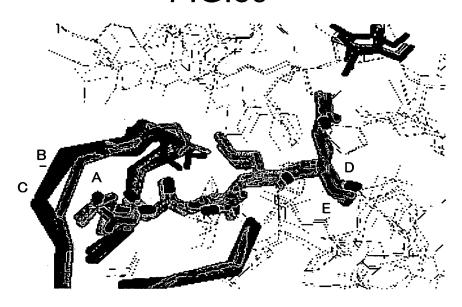


FIG.90

ATOM OF ACTIVE SITE	ATOM TYPE OF LIGAND	INTENSITY OF INTERACTION	DISTANCE OF INTERACTION [Å]
CYS145 N	ACCEPTOR	100	2.70
MET165 CG	CARBON	100	4.00
GLU166 N	ACCEPTOR	100	2.70
THR190 N	ACCEPTOR	100	2.70

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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RANKING	ENERGY	PDB code	REMARKS
1	-2095.8588	1JJQ	hormone/growth factor
2	-2011.3626	2BVW	hydrolase
3	-1670.8384	1DOG	hydrolase
4	-1336.7960	1LWJ	transferase
5	-1320.0704	1KEU	lyase
6	-1230.0604	1GAH	hydrolase
7	-1214.9459	117E	signaling protein
. 8	-1195.8653	1C39	signaling protein
9	-1191.3777	1BB5	hydrolase
10	-1189.0253	2FHI	nucleotide-binding protein
11	-1147.9761	1GO6	glycopeptide antibiotics
12	-1103.6272	1M4D	transferase
13	-1095.3050	1QHC	hydrolase
14	-1088.7299	1M2N	gene regulation
15	-1078.3684	1QGL	lectin (agglutinin)
16	-1056.4078	4ENG	glycosyl hydrolase
17	-1033.0227	1LON	ligase
18	-1031.2555	1MWL	ribonucleic acid
19	-1027.4239	1QPK	hydrolase
20	-1014.9817	1UDB	isomerase
21	-1005.1689	1GQC	transferase
22	-976.9293	1H6H	px domain
23	-975.2827	1LSP	hydrolase (o-glycosyl)
24	-973.5218	1FF1	signaling protein
25	-963.4098	3UAG	ligase
26	-937.2165	1IBG	immunoglobulin
27	-933.6818	1DRV	oxidoreductase
28	-918.6947	2MBR	oxidoreductase
29	-917.1703	1NAB	deoxyribonucleic acid
30	-897.3026	1SLY	glycosyltransferase
774	331.9928	1UK4	hydrolase

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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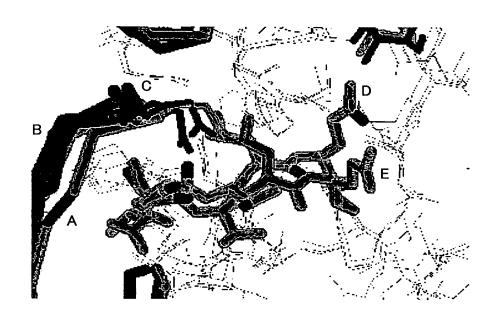


FIG.93

ATOM OF ACTIVE SITE	ATOM TYPE OF LIGAND	INTENSITY OF INTERACTION	DISTANCE OF INTERACTION [Å]
CYS145 N	O.co2	100	2.70
MET165 CG	C.3	100	4.00
GLU166 N	0.2	100	2.70
THR190 N	O.3	100	2.70

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RANKING	ENERGY	PDB code	REMARKS		
1	-1047.3743	1KZL	transferase		
2	-860.437	1J71	hydrolase		
3	-844.8737	3UAG	ligase		
4	-837.6255	1LKL	complex (tyrosine kinase/peptide)		
5	-829.8176	1QF4	ligase		
6	-732.2087	1A2N	transferase		
7	-721.6213	1G1F	hydrolase, signaling protein		
8	-698.5922	1F7B	lyase		
9	-689.1472	1BFZ	n-terminal product peptide		
10	-646.7943	148L	hydrolase(o-glycosyl)		
11	-634.4654	1CGL	metalloprotease		
12	-629.1673	1JIL	ligase		
13	-616.8733	1FF1	signaling protein		
14	-611.1171	1F9E	apoptosis		
15	-567.0738	1R1R	oxidoreductase		
16	-554.5321	1195	ribosome		
17	-547.2494	1FQX	hydrolase		
18	-536.7069	1HCT	complex (signal transduction/peptide)		
19	-531.1014	1SIA	mucin motif		
20	-508.9899	1JIJ	ligase		
21	-507.9655	1LSP	hydrolase (o-glycosyl)		
22	-497.6341	1F8H	endocytosis/exocytosis		
23	-492.3974	1F74	lyase		
24	-443.232	1QH5	hydrolase		
25	-427.5925	· 1JII	ligase		
26	-417.4991	1JQY	toxin		
27	-416.9956	2KCE	methyltransferase		
28	-396.7898	1EJB	transferase		
29	-387.6441	1MMJ	hydrolase		
30	-358.2162	1SLY	glycosyltransferase		
	_ •				
39	-245.9500	1UK4	hydrolase		

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.95

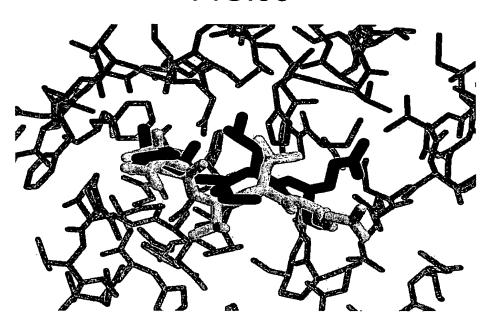
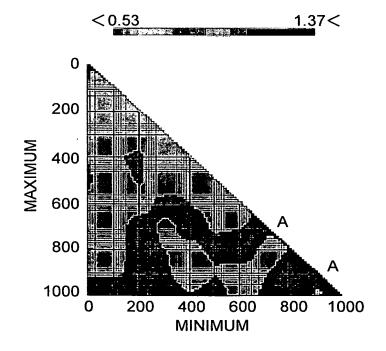


FIG.96



Title: LIGAND SEARCHING DEVICE, LIGAND SEARCHING METHOD, PROGRAM, AND RECORDING MEDIUM Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.97

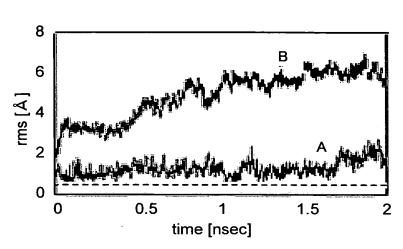
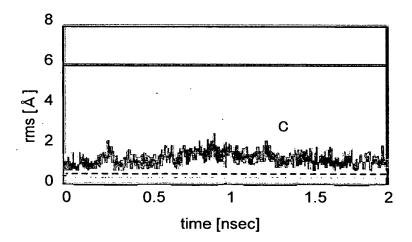


FIG.98



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.99

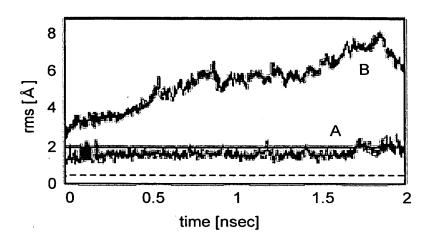
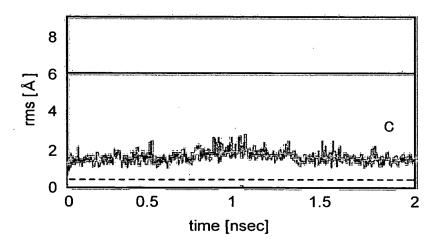


FIG.100



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.101

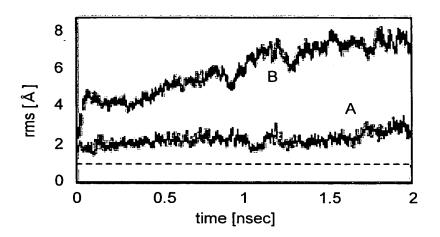
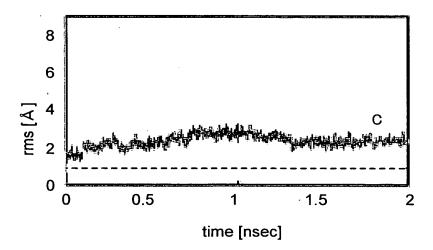


FIG.102



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.103

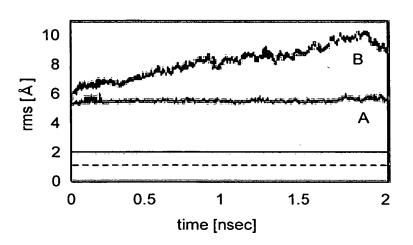
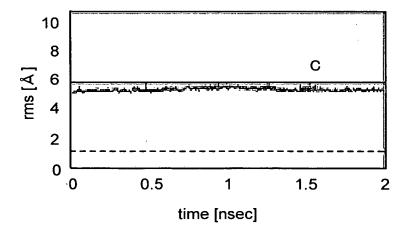


FIG.104



Title: LIGAND SEARCHING DEVICE, LIGAND SEARCHING METHOD, PROGRAM, AND RECORDING MEDIUM

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned



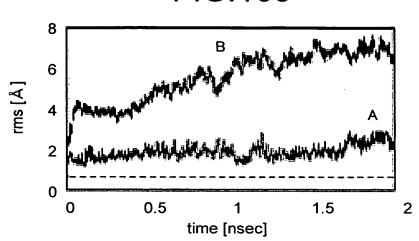
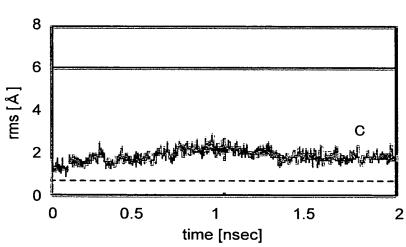


FIG.106



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

FIG.107

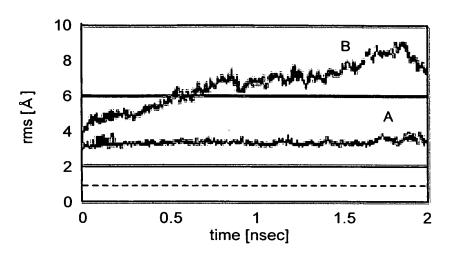
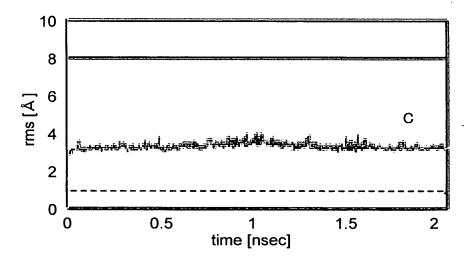


FIG.108



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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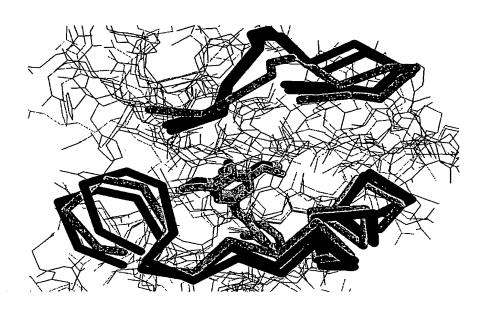
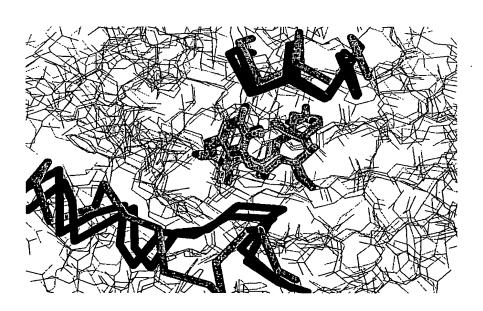


FIG.110



Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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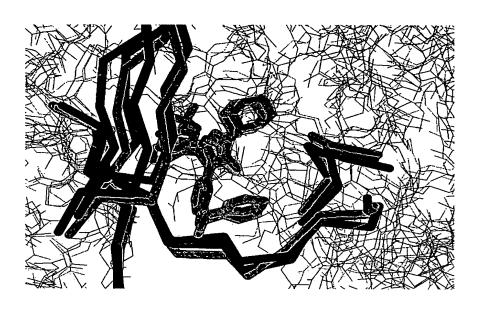


FIG.112

ATOM OF ACTIVE SITE	ATOM TYPE OF LIGAND	INTENSITY OF INTERACTION	DISTANCE OF INTERACTION [Å]
LUE4 O	N.pl3	100	2.87
ASP26 OD1	N.ar	300	3.00
ASP26 OD2	N.pl3	300	3.00

Inventor(s): Hideaki UMEYAMA et al. Appl. No.: Unassigned

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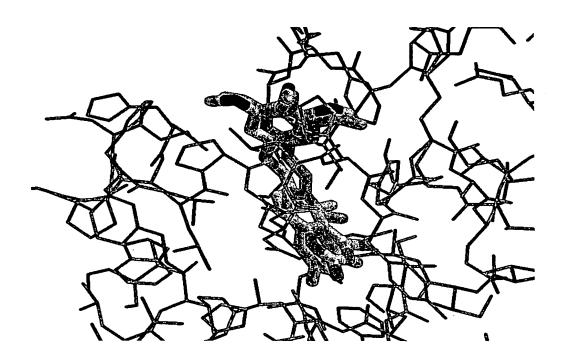
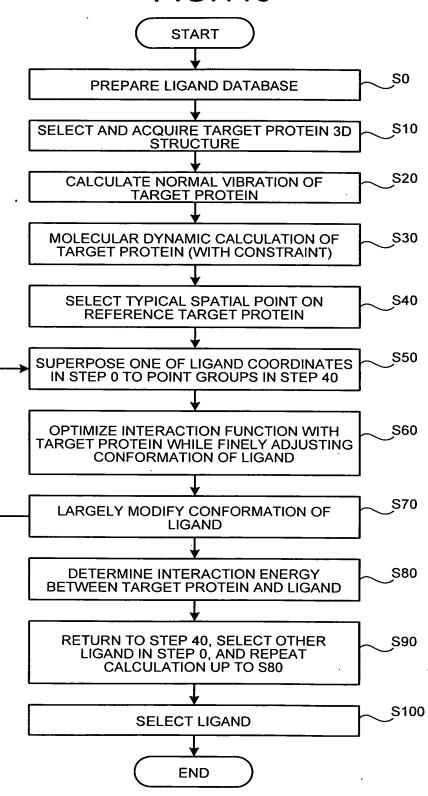


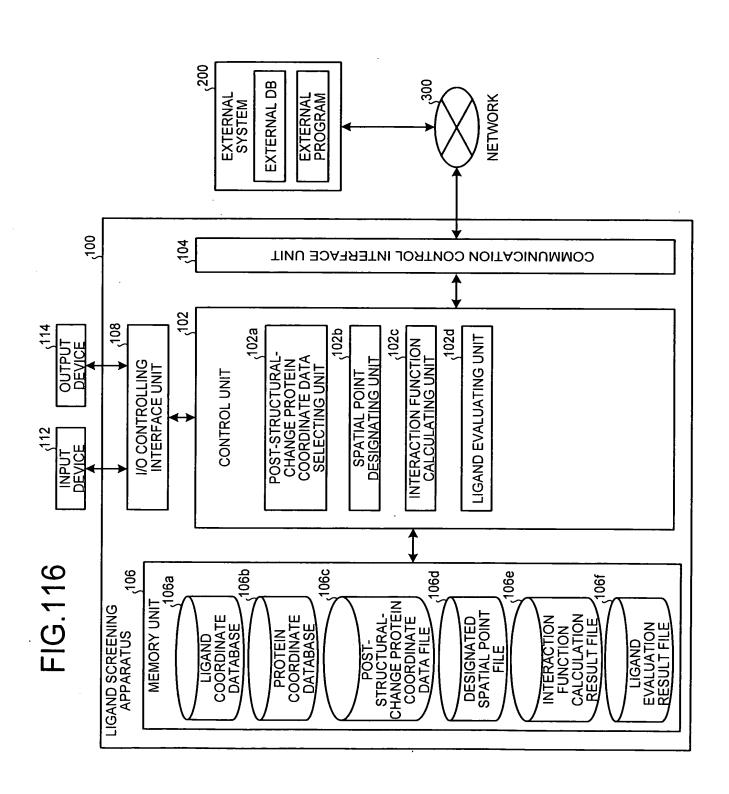
FIG.114

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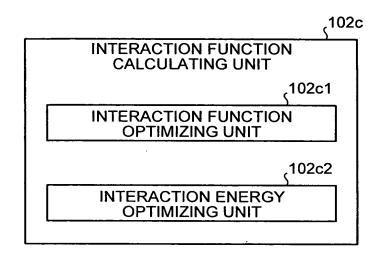
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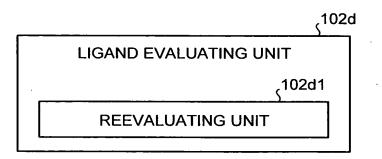


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FIG.117





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